



**Programme for 2<sup>nd</sup> Workshop on IWOW, Monday 21<sup>st</sup> October 2013**

*Location: Great Hall, Sutherland Building, Northumbria University*

08:30	Registration	
08:50	<b>IWOW 2013 Opening Session and Welcome to 5<sup>th</sup> COST IC1101 MC meeting – 2<sup>nd</sup> COST IC1101 Training School</b>	<b>Prof Peter Golding</b> , Pro-vice Chancellor Research and Innovation, Northumbria University
09:15	Invited WG Lecture - <b>Prof Lu Chao</b> <i>Digital signal processing techniques for long haul and short reach optical communication systems</i>	
10:00	Coffee break	
10:15	<b>Session A</b> – Oral presentations	
12:15	Lunch break + <b>Poster Session</b>	
13:15	<b>Session B</b> – Oral presentations	
15:15	Invited WG Lecture - <b>Prof Thomas Little</b> <i>The use of lighting devices as an opportunistic platform for enhancing performance of localized wireless data access</i>	
16:00	Coffee break + <b>Poster Session</b>	
16:30	<b>Session C</b> – Oral presentations	
18:30	<b>5<sup>th</sup> COST ACTION IC1101 Management Committee Meeting (Open Discussion) - Closing Ceremony</b> <b>Prof Ghassemlooy</b>	



**Session A - Visible Light Communications – Session Chair: Professor Carlo Capsoni**

*Each presentation is for 12 mins + 3 mins of Q&A*

<b>Title</b>	<b>Author</b>	<b>Presenter</b>	<b>Time</b>
<i>A Survey of Channel Models for Underwater Optical Wireless Communication</i>	<a href="#">Laura J Johnson</a> (University of Warwick, United Kingdom); <a href="#">Roger J Green</a> (University of Warwick, United Kingdom); <a href="#">Mark S Leeson</a> (University of Warwick, United Kingdom)	<a href="#">Laura J Johnson</a>	10.15 - 10.30
<i>Design of cellular backhaul topology using the FSO technology</i>	<a href="#">Yuan Li</a> (Lund University, Sweden); <a href="#">Michał Pióro</a> (Lund University, Sweden); <a href="#">Vangelis Angelakis</a> (Linköping University, Sweden)	<a href="#">Vangelis Angelakis</a>	10.30 – 10.45
<i>Experimental Demonstration of High Speed Underwater Visible Light Communications</i>	<a href="#">Giulio Cossu</a> (Scuola Superiore Sant'Anna University, Italy); <a href="#">Raffaele Corsini</a> (Scuola Superiore Sant'Anna University, Italy); <a href="#">Amir Khalid</a> (Scuola Superiore Sant'Anna University, Italy); <a href="#">Salvatore Balestrino</a> (Università di Pisa, Italy); <a href="#">Alessandro Coppelli</a> (Università di Pisa, Italy); <a href="#">Andrea Caiti</a> (University of Pisa, Italy); <a href="#">Ernesto Ciaramella</a> (Scuola Superiore Sant'Anna University, Italy)	<a href="#">Ernesto Ciaramella</a>	10.45 -11.00
<i>Carrier Drawing-out Power LED Driver with Cost-effective Discrete Parts</i>	<a href="#">Gábor Szabó</a> (Budapest University of Technology and Economics (BME), Hungary); <a href="#">Gábor Fehér</a> (Budapest University of Technology and Economics (BME), Hungary); <a href="#">Gábor Fekete</a> (Budapest University of Technology and Economics (BME), Hungary); <a href="#">Gergely Mészáros</a> (Budapest University of Technology and Economics (BME), Hungary)	<a href="#">Gábor Fekete</a>	11.00 – 11.15
<i>SINR Analysis and Cell Zooming with Constant Illumination for Indoor VLC Networks</i>	<a href="#">Michael Rahaim</a> (Boston University, USA); <a href="#">Thomas DC Little</a> (Boston University, USA)	<a href="#">Michael Rahaim</a>	11.15 – 11.30
<i>An Indoor Visible Light Communication Positioning System Using Dual-Tone Multi-Frequency Technique</i>	<a href="#">Pengfei Luo</a> (Beijing University of Posts and Telecommunications, P.R. China); <a href="#">Min Zhang</a> (Beijing University of Posts and Telecommunications, P.R. China); <a href="#">Xiang Zhang</a> (Beijing University of Posts and Telecommunications, P.R. China); <a href="#">Guangming Cai</a> (Beijing University of Posts and Telecommunications, P.R. China); <a href="#">Dahai Han</a> (Beijing University of Posts and Telecommunications, P.R. China); <a href="#">Qing Li</a> (Beijing University of Posts and Telecommunications, P.R. China)	<a href="#">Pengfei Luo</a>	11.30 – 11.45
<i>Design of a Visible Light Communication Transmitter for the Evaluation of a Wide Range of Modulation Techniques</i>	<a href="#">Steven De Lausnay</a> (Catholic University College Ghent, Belgium); <a href="#">Lieven De Strycker</a> (Catholic University College Ghent, Belgium); <a href="#">Jean-Pierre Goemaere</a> (Catholic University College Ghent, Belgium); <a href="#">Bart Nauwelaers</a> (Katholieke Universiteit Leuven, Belgium); <a href="#">Nobby Stevens</a> (Catholic University College Ghent, Belgium)	<a href="#">Steven De Lausnay</a>	11.45 – 12.00
<i>PHY Layer Performance Evaluation of the IEEE 802.15.7 Visible Light Communication Standard</i>	<a href="#">Elham Sarbazi</a> (Ozyegin University, Turkey); <a href="#">Murat Uysal</a> (Ozyegin University, Turkey)	<a href="#">Elham Sarbazi</a>	12.00 – 12.15

**Session B –Outdoor Free Spcae Optical Systems (FSO) – Session Chair: *Professor Ernesto Ciaramella***

*Each presentation is for 12 mins + 3 mins of Q&A*

<b>Title</b>	<b>Author</b>	<b>Presenter</b>	<b>Time</b>
<i>Propagation Characteristics Obtained on Parallel Terrestrial FSO Links at 860 nm and 1550 nm</i>	<a href="#">Vaclav Kvicera</a> (Czech Metrology Institute, Czech Republic); <a href="#">Martin Grabner</a> (Czech Metrology Institute, Czech Republic); <a href="#">Ondrej Fiser</a> (Institute of Atmospheric Physics, Czech Republic)	<a href="#">Vaclav Kvicera</a>	13.15 – 13.30
<i>On the Performance of Hybrid RF and RF/FSO Dual-Hop Transmission Systems</i>	<a href="#">Imran Shafique Ansari</a> (King Abdullah University of Science and Technology, Saudi Arabia); <a href="#">Ferkay Yilmaz</a> (Vodafone Teknoloji Oksijen Ar-Ge, Turkey); <a href="#">Mohamed-Slim Alouini</a> (King Abdullah University of Science and Technology (KAUST), Saudi Arabia)	<a href="#">Imran Shafique Ansari</a>	13.30 – 13.45
<i>Measurements of Optical Attenuation through Fog: Comparison between a 0.785 <math>\mu\text{m}</math> Laser Link and a Visibility Sensor</i>	<a href="#">Roberto Nebuloni</a> (Ieiiit - Cnr, Italy); <a href="#">Carlo Capsoni</a> (Politecnico di Milano, Italy)	<a href="#">Carlo Capsoni</a>	13.45 – 14.00
<i>mm-wave and Wi-Fi Transmission over Single and Multi-mode Optical Fibers</i>	<a href="#">Uchenna O Igweani</a> (Brunel University, United Kingdom); <a href="#">Hamed Saffa Al-Raweshidy</a> (University of Brunel, United Kingdom)	<a href="#">Uchenna O Igweani</a>	14.00 – 14.15
<i>Hydrometeor scattering and stochastic modeling for free-space optical channel characterization</i>	<a href="#">Saverio Mori</a> (Sapienza University of Rome, Italy); <a href="#">Frank S. Marzano</a> (Sapienza University of Rome, Italy); <a href="#">Luigi Mereu</a> (Sapienza University of Rome, Italy); <a href="#">Mario Montopoli</a> (University of L'aquila, Italy); <a href="#">Giorgio Maria Tosi Beleffi</a> (ISCTI - Ministry of Economic Development - Communications Department, Italy); <a href="#">Silvia Di Bartolo</a> (ISCTI - Ministry of Economic Development - Communications Department, Italy)	<a href="#">Frank S. Marzano</a>	14.15 – 14.30
<i>Cloud microphysics from the Free Space Optical link point of view - preliminary experimental results</i>	<a href="#">Vladimir Brazda</a> (Institute of Atmospheric Physics Prague, Czech Republic); <a href="#">Ondrej Fiser</a> (Institute of Atmospheric Physics, Czech Republic); <a href="#">Carlo Capsoni</a> (Politecnico di Milano, Italy); <a href="#">Roberto Nebuloni</a> (Ieiiit - Cnr, Italy); <a href="#">Petr Pesice</a> (Institute of Atmospheric Physics Prague, Czech Republic); <a href="#">Zuzana Chladova</a> (Institute of Atmospheric Physics, Czech Republic)	<a href="#">Ondrej Fiser</a>	14.30 – 14.45
<i>FSO for broadband multi service delivery in future networks</i>	<a href="#">Giorgia Parca</a> (Insituto de Telecomunicações, Portugal); <a href="#">Ana Tavares</a> (Instituto de Telecomunicações, Portugal); <a href="#">Ali Shahpari</a> (University of Aveiro, Portugal); <a href="#">Valeria Carrozzo</a> (Università di Roma "Tor Vergata", Italy); <a href="#">Giorgio Tosi Beleffi</a> (Ministry of Economic Development, Italy); <a href="#">Antonio Teixeira</a> (University of Aveiro, Portugal)	<a href="#">Ali Shahpari</a>	14.45 – 15.00
<i>Performance Evaluation of Correlated-Fading Space-Diversity FSO Links</i>	<a href="#">Guowei Yang</a> (Ecole Centrale Marseille, France); <a href="#">Mohammad-Ali Khalighi</a> (Ecole Centrale Marseille, France); <a href="#">Zabih Ghassemlooy</a> (Northumbria University, United Kingdom); <a href="#">Salah Bourennane</a> (Ecole Centrale Marseille, France)	<a href="#">Mohammad-Ali Khalighi</a>	15.00 – 15.15

**Session C – Optical Wireless Communications Research Trends – Session Chair: *Dr Mohammad-Ali Khalighi***

*Each presentation is for 12 mins + 3 mins of Q&A*

<b>Title</b>	<b>Author</b>	<b>Presenter</b>	<b>Time</b>
<i>DWDM Bidirectional Wavelength Reuse Optical Wireless Transmission in 2*80 Gbit/s Capacity</i>	<a href="#">Hai-Yin Hsu</a> (National Taiwan University of Science and Technology, Taiwan); <a href="#">Wan-Chian Lu</a> (National Taiwan University of Science and Technology, Taiwan); <a href="#">Zabih Ghassemlooy</a> (Northumbria University, United Kingdom); <a href="#">Hoa Le Minh</a> (Northumbria University, United Kingdom); <a href="#">Yi-Lin Yu</a> (National Taiwan University Science and Technology, Taiwan); <a href="#">Shien-Kuei Peter Liaw</a> (National Taiwan University of Science and Technology, Taiwan)	<a href="#">Hoa Le Minh</a>	16.30 – 16.45
<i>Hybrid Line-of-Sight Indoor Infrared Laser Wireless Link with 10Gbps Downlink and 1Gbps Uplink</i>	<a href="#">Dimitar Kolev</a> (Waseda university, Japan); <a href="#">Mitsuji Matsumoto</a> (Waseda University, Japan); <a href="#">Kazuhiko Wakamori</a> (Waseda University, Japan); <a href="#">Takahiro Kubo</a> (NTT DOCOMO, INC., Japan); <a href="#">Takashi Yamada</a> (NTT, Japan); <a href="#">Naoto Yoshimoto</a> (NTT, Japan)	<a href="#">Dimitar Kolev</a>	16.45 – 17.00
<i>Subcarrier Noncoherent and Differentially Coherent Modulated Optical Communications in Strong Atmospheric Turbulence</i>	<a href="#">Xuegui Song</a> (University of British Columbia, Canada); <a href="#">Julian Cheng</a> (University of British Columbia, Canada)	<a href="#">Julian Cheng</a>	17.00 – 17.15
<i>First Order Statistics of Semiconductor Optical Amplifier Assisted Optical Wireless Systems under Lognormal Fading</i>	<a href="#">Anthony Boucouvalas</a> (University of Peloponnese, Greece); <a href="#">Nikos C. Sagiias</a> (University of Peloponnese, Greece); <a href="#">Konstantinos Yiannopoulos</a> (University of Peloponnese, Greece)	<a href="#">Anthony Boucouvalas</a>	17.15 – 17.30
<i>Mini optical concentrator design for indoor high bit rate optical wireless communications</i>	<a href="#">Hani Al Hajjar</a> (Universite de Technologie de Compiègne, France); <a href="#">Bruno Fracasso</a> (Télécom Bretagne, France); <a href="#">Frédéric Lamarque</a> (Université de Technologie de Compiègne, France)	<a href="#">Hani Al Hajjar</a>	17.30 – 17.45
<i>Merits and Limitations of Spatial Modulation for Optical Wireless Communications</i>	<a href="#">Wasiu O. Popoola</a> (Glasgow Caledonian University, United Kingdom)	<a href="#">Wasiu O. Popoola</a>	17.45 – 18.00
<i>FPGA-based Media Converter for FSO Links</i>	<a href="#">Juraj Poliak</a> (Brno University of Technology, Czech Republic); <a href="#">Michal Kubicek</a> (Brno University of Technology, Czech Republic)	<a href="#">Juraj Poliak</a>	18.00 – 18.15

## Poster Session - Optical Wireless Communications and Free Space Optical Systems Research Trends

Title	Author	Presenter
<i>A Semi-Independent Structure for the Architectural Design of the Converged Scenario for Integrated Hybrid PON with Wireless Technologies for Next Generation Broadband Access Networks</i>	<a href="#">Naghmeb Moradpoor</a> (University of Abertay Dundee, United Kingdom)	<a href="#">Naghmeb Moradpoor</a>
<i>Investigation of wireless optical technology for communication between on-body nodes</i>	<a href="#">Ludovic Chevalier</a> (University of Limoges, France); <a href="#">Stephanie Sahuguede</a> (University of Limoges, France); <a href="#">Anne Julien-Vergonjanne</a> (University of Limoges, France); <a href="#">Pierre Combeau</a> (XLIM University of Poitiers, France); <a href="#">Lilian Aveneau</a> (University of Poitiers, France)	<a href="#">Ludovic Chevalier</a>
<i>Performance of Indoor Visible Light Systems Using OOK and PPM Modulations Under Multipath Channels</i>	<a href="#">Nan Wu</a> (Dalian Maritime University, P.R. China); <a href="#">Xudong Wang</a> (Dalian Maritime University, P.R. China); <a href="#">Hao Dai</a> (Dalian Maritime University, P.R. China)	<a href="#">Nan Wu</a>
<i>Residual Carrier Influence on System Performance of a 60 GHz Radio-over-Fiber System</i>	<a href="#">Zaid Al-Husseini</a> (Dresden University of Technology, Germany); <a href="#">Niels Neumann</a> (Technische Universität Dresden, Germany); <a href="#">Dirk Plettmeier</a> (Dresden University of Technology, Germany)	<a href="#">Niels Neumann</a>
<i>Indoor Hybrid Fibre and Wireless CDMA System using Optically Pre-amplified Fibre Coupled Receiver</i>	<a href="#">Afamefuna Mbah</a> (University of Nottingham, United Kingdom); <a href="#">John Walker</a> (University of Nottingham, United Kingdom); <a href="#">Andrew Phillips</a> (University of Nottingham, United Kingdom)	<a href="#">Afamefuna Mbah</a>
<i>Optical Communications over Lognormal Fading Channels Using OOK</i>	<a href="#">Luanxia Yang</a> (The University of British Columbia, Canada); <a href="#">Julian Cheng</a> (University of British Columbia, Canada); <a href="#">Jonathan F Holzman</a> (University of British Columbia (UBC) Okanagan, Canada)	<a href="#">Julian Cheng</a>
<i>QoS in optical underwater-to-air links</i>	<a href="#">Victor Guerra</a> (IDeTIC-ULPGC, Spain); <a href="#">Cristo Suarez-Rodriguez</a> (IDeTIC-ULPGC, Spain); <a href="#">Jose Rabadan</a> (CeTIC-DSC, Universidad de Las Palmas, Spain); <a href="#">Julio Rufo</a> (IDeTIC-ULPGC, Spain); <a href="#">Rafael Perez-Jimenez</a> (Universidad de Las Palmas de Gran Canaria, Spain)	<a href="#">Cristo Suarez-Rodriguez</a>
<i>Laboratory and Outdoor Availability and Spatial Coherence Tests of Wireless Optical Links</i>	<a href="#">Petr Chvojka</a> (Czech Technical University in Prague, Czech Republic); <a href="#">Jan Bohata</a> (Czech Technical University in Prague, Czech Republic); <a href="#">Jiri Libich</a> (Czech Technical University in Prague, Czech Republic); <a href="#">Stanislav Zvanovec</a> (Czech Technical University in Prague, Czech Republic); <a href="#">Joaquin Perez</a> (Northumbria University, United Kingdom)	<a href="#">Petr Chvojka</a>
<i>Monte Carlo Simulation for Underwater Optical Wireless Communications</i>	<a href="#">Faezah Jasman</a> (University of Warwick, United Kingdom); <a href="#">Roger J Green</a> (University of Warwick, United Kingdom)	<a href="#">Faezah Jasman</a>
<i>A Report on H-FSO/RF Antenna Measurement for Outdoor Applications</i>	<a href="#">Mojtaba Mansour Abadi</a> (Northumbria University, United Kingdom); <a href="#">Zabih Ghassemlooy</a> (Northumbria University, United Kingdom); <a href="#">David Smith</a> (Northumbria University, United Kingdom); <a href="#">Wai Pang Ng</a> (Northumbria University, United Kingdom)	<a href="#">Mojtaba Mansour Abadi</a>
<i>The effects of the Earthquake to Free Space Optical Tracking system</i>	<a href="#">Mitsuji Matsumoto</a> (Waseda University, Japan); <a href="#">Kazuhiko Wakamori</a> (Waseda University, Japan)	<a href="#">Mitsuji Matsumoto</a>
<i>Impact of Amplified Spontaneous Emission on the Travelling Wave Semiconductor Optical Amplifier Performance</i>	<a href="#">Ahmed Abd El Aziz</a> (Photonics Research Lab, Arab Academy of Science and Technology, Egypt); <a href="#">Engy El Nayal</a> (Arab Academy of Science and Technology, Egypt); <a href="#">Moustafa Hussein Aly</a> (Arab Academy for Science, Technology & Maritime Transport, Egypt); <a href="#">Ahmed AboulSeoud</a> (University of Alexandria, Egypt); <a href="#">Wai Pang Ng</a> (Northumbria University, United Kingdom)	<a href="#">Wai Pang Ng</a>

**Thank you for contributing and participating at IWOW 2013.**